

Iowa Alternate Assessment

Performance Level Descriptors & Cut Scores

2009 – 2010

Science

Grade 5 – Science Performance Descriptors and Cut Scores

Basic	Proficient	Advanced
<p>Concrete: respond to, reproduce</p> <p><i>Inquiry</i></p> <ul style="list-style-type: none"> • Ask a questions about objects, organisms, and events in the environment • Plan and conduct a simple investigation • Employ simple equipment and tools to gather data and extend the senses • Use data to construct a reasonable explanation • Communicate investigations and explanations <p><i>Life Science</i></p> <ul style="list-style-type: none"> • Structures of living things • Life cycles • Environmental interaction and adaptation <p><i>Earth Science</i></p> <ul style="list-style-type: none"> • Earth’s composition and structure • Changes in and around Earth • Solar system <p><i>Physical Science</i></p> <ul style="list-style-type: none"> • Mechanics, contact forces, and motion • Types of energy • Properties and characteristics of matter 	<p>Representation: recall and apply</p> <p><i>Inquiry</i></p> <ul style="list-style-type: none"> • Ask a question about objects, organisms, and events in the environment • Plan and conduct a simple investigation • Employ simple equipment and tools to gather data and extend the senses • Use data to construct a reasonable explanation • Communicate investigations and explanations <p><i>Life Science</i></p> <ul style="list-style-type: none"> • Structures of living things • Life cycles • Environmental interaction and adaptation <p><i>Earth Science</i></p> <ul style="list-style-type: none"> • Earth’s composition and structure • Changes in and around Earth • Solar system <p><i>Physical Science</i></p> <ul style="list-style-type: none"> • Mechanics, contact forces, and motion • Types of energy • Properties and characteristics of matter 	<p>Abstract: analyze, problem solve, synthesis</p> <p><i>Inquiry</i></p> <ul style="list-style-type: none"> • Ask a question about objects, organisms, and events in the environment • Plan and conduct a simple investigation • Employ simple equipment and tools to gather data and extend the senses • Use data to construct a reasonable explanation • Communicate investigations and explanations <p><i>Life Science</i></p> <ul style="list-style-type: none"> • Structures of living things • Life cycles • Environmental interaction and adaptation <p><i>Earth Science</i></p> <ul style="list-style-type: none"> • Earth’s composition and structure • Changes in and around Earth • Solar system <p><i>Physical Science</i></p> <ul style="list-style-type: none"> • Mechanics, contact forces, and motion • Types of energy • Properties and characteristics of matter
0-35	36-59	60+

Grade 8 – Science Performance Descriptors and Cut Scores

Basic	Proficient	Advanced
<p>Concrete: respond to, reproduce</p> <p><i>Inquiry</i></p> <ul style="list-style-type: none"> Identify questions that can be answered through scientific investigations Design and conduct a scientific investigation Use appropriate tools and techniques to gather, analyze and interpret data Develop descriptions, explanations, predictions and models using evidence Recognize and analyze alternative explanations and predictions <p><i>Life Science</i></p> <ul style="list-style-type: none"> Structures and function of living things Characteristics of living systems Environmental interaction, diversity, change, and adaptation <p><i>Earth Science</i></p> <ul style="list-style-type: none"> Earth's composition and structure Changes in and around Earth Mechanics of the solar system <p><i>Physical Science</i></p> <ul style="list-style-type: none"> Mechanics, contact forces, and motion Energy transfer Properties and characteristics of matter 	<p>Representation: recall and Apply</p> <p><i>Inquiry</i></p> <ul style="list-style-type: none"> Identify questions that can be answered through scientific investigations Design and conduct a scientific investigation Use appropriate tools and techniques to gather, analyze and interpret data Develop descriptions, explanations, predictions and models using evidence Recognize and analyze alternative explanations and predictions <p><i>Life Science</i></p> <ul style="list-style-type: none"> Structures and function of living things Characteristics of living systems Environmental interaction, diversity, change, and adaptation <p><i>Earth Science</i></p> <ul style="list-style-type: none"> Earth's composition and structure Changes in and around Earth Mechanics of the solar system <p><i>Physical Science</i></p> <ul style="list-style-type: none"> Mechanics, contact forces, and motion Energy transfer Properties and characteristics of matter 	<p>Abstract: analyze, problem solve, synthesis</p> <p><i>Inquiry</i></p> <ul style="list-style-type: none"> Identify questions that can be answered through scientific investigations Design and conduct a scientific investigation Use appropriate tools and techniques to gather, analyze and interpret data Develop descriptions, explanations, predictions and models using evidence Recognize and analyze alternative explanations and predictions <p><i>Life Science</i></p> <ul style="list-style-type: none"> Structures and function of living things Characteristics of living systems Environmental interactions, diversity, change, and adaptation <p><i>Earth Science</i></p> <ul style="list-style-type: none"> Earth's composition and structure Changes in and around Earth Mechanics of the solar system <p><i>Physical Science</i></p> <ul style="list-style-type: none"> Mechanics, contact forces, and motion Energy transfer Properties and characteristics of matter
0-40	41-69	70+

Grade 11 – Science Performance Descriptors and Cut Scores

Basic	Proficient	Advanced
<p>Concrete: respond to, reproduce</p> <p><i>Inquiry</i></p> <ul style="list-style-type: none"> Identify questions and concepts that guide scientific investigations Design and conduct experiment (choosing proper equipment, safety equipment, use information from other sources outside the investigation) Use technology and mathematics to improve investigations and communication (interpreting graphical information) Formulate and revise scientific explanations and models using logic and evidence Communicate and defend a scientific argument <p><i>Life Science</i></p> <ul style="list-style-type: none"> Adequacy and accuracy of information about life science Predictions from data from life science Scientific investigations in life science <p><i>Earth Science</i></p> <ul style="list-style-type: none"> Adequacy and accuracy of information about Earth/space science Predictions from data from Earth/space science Scientific investigations in Earth/space science <p><i>Physical Science</i></p> <ul style="list-style-type: none"> Adequacy and accuracy of information about physical science Predictions from data from physical science Scientific investigations in physical science 	<p>Representation: recall and apply</p> <p><i>Inquiry</i></p> <ul style="list-style-type: none"> Identify questions and concepts that guide scientific investigations Design and conduct experiment (choosing proper equipment, safety equipment, use information from other sources outside the investigation) Use technology and mathematics to improve investigations and communication (interpreting graphical information) Formulate and revise scientific explanations and models using logic and evidence Communicate and defend a scientific argument <p><i>Life Science</i></p> <ul style="list-style-type: none"> Adequacy and accuracy of information about life science Predictions from data from life science Scientific investigations in life science <p><i>Earth Science</i></p> <ul style="list-style-type: none"> Adequacy and accuracy of information about Earth/space science Predictions from data from Earth/space science Scientific investigations in Earth/space science <p><i>Physical Science</i></p> <ul style="list-style-type: none"> Adequacy and accuracy of information about physical science Predictions from data from physical science Scientific investigations in physical science 	<p>Abstract: analyze, problem solve, synthesis</p> <p><i>Inquiry</i></p> <ul style="list-style-type: none"> Identify questions and concepts that guide scientific investigations Design and conduct experiment (choosing proper equipment, safety equipment, use information from other sources outside the investigation) Use technology and mathematics to improve investigations and communication (interpreting graphical information) Formulate and revise scientific explanations and models using logic and evidence Communicate and defend a scientific argument <p><i>Life Science</i></p> <ul style="list-style-type: none"> Adequacy and accuracy of information about life science Predictions from data from life science Scientific investigations in life science <p><i>Earth Science</i></p> <ul style="list-style-type: none"> Adequacy and accuracy of information about Earth/space science Predictions from data from Earth/space science Scientific investigations in Earth/space science <p><i>Physical Science</i></p> <ul style="list-style-type: none"> Adequacy and accuracy of information about physical science Predictions from data from physical science Scientific investigations in physical science
0-50	51-64	80+